MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2016/2017

EES 3016 – ENGINEER AND SOCIETY

(All sections / Groups)

19 October 2016
2:30 p.m. – 4:30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This Question paper consists of 6 pages including cover page.
2. There is a total of 5 [FIVE] questions.
3. Answer **ALL** questions.
4. All questions carry equal marks and the distribution of the marks for each question is given.
5. Please write all your answers in the Answer Booklet provided.

Question 1

(a) The practice of engineering is confined within the domain of societal interests. Briefly discuss the relationship between engineers and society.

[3 marks]

(b) National development refers to the ability of a nation to improve the lives of its citizen. Discuss the social indicators that measure the development of a nation.

[6 marks]

(c) Discuss TWO roles of engineers to protect or conserve the environment.

[4 marks]

(d) The transboundary haze crisis persists as a regional pollution problem in Southeast Asia year after year can result from both natural causes as well as human activities.

(i) Discuss TWO human activities that can cause haze.

[4 marks]

(ii) Explain the economic impact of the haze crisis in Southeast Asia.

[3 marks]

Question 2

(a) Malaysia is a signatory to the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) signed under the auspices of the World Trade Organisation (WTO).

(i) Explain the meaning of the term intellectual property.

[2 marks]

(ii) Discuss TWO benefits of Malaysia being a signatory to the agreement.

[4 marks]

(b) Free Trade Agreements (FTAs) are international treaties that reduce barriers of trade and investment.

(i) State TWO characteristics of the Free Trade Agreement (FTA).

[2 marks]

(ii) List the areas of trade liberalization covered in an FTA.

[3 marks]

(c) Project management is the application of processes, methods, knowledge, skills and experience to achieve the project objectives.

(i) Describe THREE roles and responsibilities of a project manager.

[3 marks]

(ii) Discuss TWO consequences of poor engineering project planning.

[4 marks]

(iii) Briefly explain why it is important for a project manager to have good interpersonal skills.

[2 marks]

Question 3

(a) The guideline for an organization to manage safety and health issues in the workplace is set out by the Occupational Safety and Health (OSH) Policy. Name three (3) components that make up the OSH Policy.

[3 marks]

(b) Explain how the OSH Policy and practice could promote safety and health at the workplace.

[6 marks]

(c) Mr. John Doe is running a small size electrical appliances repair business employing seven workers. The company receives quite an impressive amount of jobs from several prominent manufacturers in the local market on a monthly basis. Mr. John Doe however, does not implement safety regulations in his company. Discuss the negative implications if safety regulations are not practiced at the workplace.

[8 marks]

(d) One of the roles of Department of Occupational, Safety and Health (DOSH) is to enforce the OSH Act 1994, Factories and Machinery Act 1967, and part of Petroleum Act 1984 (Safety Measure). Briefly describe at least three (3) other roles of DOSH.

[3 marks]

Question 4

(a) Describe the term Professional Ethics. [3 marks]

(b) Normative Ethics is defined as the ultimate set of principles or ideas of moral standard that regulate right or wrong conducts. The following are among the several theories considered for Normative Ethics:

(i) Duty Ethics and Rights Ethics
(ii) Virtue Ethics

Briefly explain each of these theories.

[6 marks]

(c) An Engineer who is retained by the state government is to conduct a feasibility. He has to perform and make recommendations concerning location of a new project development in the state. Two suitable sites have been identified by the state government. The first site is undeveloped land owned by an individual who plans to build a home for his parents. The second site, owned by the Engineer himself, is well developed. The Engineer intends to recommend the state to build the project on the second site of land. He will disclose that he is the owner of the land. His choice of the second land is due to (1) it is a better location for the project from engineering standpoint, and (2) it would be less costly for the state to acquire. The state government did not object to having the Engineer performing the feasibility study.

Analyse the situation and state the reasons whether it was ethical for the Engineer to perform the feasibility study and make recommendations concerning the location of the new project for the state.

[11 marks]

Question 5

The Registration of Engineers (Amendment) Act 2015 and The Regulations of Engineers (Amendment) Regulations 2015 have come into operation on 31 July 2015.

(a) The amendment allows Board of Engineers Malaysia (BEM) to register and regulate the engineering team. Specify the categories of members that fall under this engineering team.

[5 marks]

(b) Discuss in details how the new Act supports the Malaysian government policy to liberalise the engineering service sector as compared to the earlier Act that was seen to be very restrictive.

[6 marks]

(c) An investment company which is based in Europe is interested to set up an engineering consultancy business in Malaysia. State the type of practices allowed and describe the local requirement as set out by BEM that the company need to fulfill in order to get such business registered in Malaysia.

[3 + 6 marks]

End of Paper